

SEARCH FOR $J^{PC} = 1^{-+}$ EXOTIC MESONS
IN THE ELECTROPRODUCTION REACTIONS
USING CLAS DETECTOR AT CEBAF *

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ABSTRACT

This experiment will search for $J^{PC} = 1^{-+}$, $J^{PC} = 1^{--}$ exotic hybrids in electroproduction in the mass range up to ≈ 2 GeV by detection of the $\eta\pi$, and $\eta'\pi$, pseudoscalar meson decay products. The signature for the exotic will be obtained from the measurement of the angular distributions of the reconstructed pseudoscalar mesons. There have been indications of these hybrids in hadronic production. Using estimates of the electroproduction cross section and the exotic hybrid branching fraction into $\eta\pi$ we expect ~ 10000 reconstructed hybrids in a 30 day running period with a 6 GeV e^- beam.

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